

CLAIMS

What is claimed is:

1. An apparatus for protecting data tape cartridges, comprising:
 - a frame having an interior defined by a front, a rear, a top, a bottom, and a pair of side walls;
 - a plurality of partitions located in and mounted to the interior of the frame in a parallel configuration, each of the partitions defining a pair of adjacent, parallel slots inside the frame, each of the slots having a top, a bottom, and a pair of side walls adapted to engage and retain a data tape cartridge therein through the front of the frame in order to isolate the data tape cartridges from each other;
 - a rear opening formed in the rear of the frame adapted to provide simultaneous access to all of the data tape cartridges in the slots and, if desired, for allowing a force to be applied simultaneously to all of the data tape cartridges to push all of the data tape cartridges out of the front of the frame at the same time; and
 - a plurality of apertures formed in the frame, each of the apertures registering with one of the slots and adapted to provide access to a respective one of the data tape cartridges for inspecting said respective one of the data tape cartridges.
2. The apparatus of claim 1, wherein the top, the bottom, and the pair of side walls for each of the slots is corrugated.
3. The apparatus of claim 1, wherein the top, the bottom, and the pair of side walls of each slot are adapted to frictionally engage a respective one of the data tape cartridges in a snug yet compliant manner.

4. The apparatus of claim 1, wherein the rear opening is also formed in the top and the bottom of the frame, such that the rear opening extends from the top of the frame to the bottom of the frame.
5. The apparatus of claim 4, wherein each of the partitions has an opening formed in a rear portion thereof that is complementary in shape to the rear opening formed in the rear of the frame.
6. The apparatus of claim 1, wherein each of the apertures is an elongated slot extending from the rear of the frame toward the front of the frame.
7. The apparatus of claim 1, wherein the apertures are formed in one of the side walls of the frame for providing access to a rear portion and a side portion of respective ones of the data tape cartridges.
8. The apparatus of claim 1, wherein the frame and the partitions are integrally formed as a single piece of plastic.
9. The apparatus of claim 1, further comprising a front opening formed in the top and the bottom of the frame and in each of the partitions and adapted to provide simultaneous access to all of the data tape cartridges in the slots and, if desired, for allowing a force to be applied simultaneously to all of the data tape cartridges to push all of the data tape cartridges into the slots toward the rear of the frame at the same time.

10. A system for protecting data tape cartridges from shock and vibration during shipping and for storing the data tape cartridges, the system comprising:

a frame having an interior defined by a front, a rear, a top, a bottom, and a pair of side walls;

a plurality of partitions located in and mounted to the interior of the frame in a parallel configuration, each of the partitions defining a pair of adjacent, parallel slots inside the frame, and each of the slots having a top, a bottom, and a pair of side walls that engage and retain one data tape cartridge therein to isolate the data tape cartridges from each other;

a rear opening formed in the rear of the frame that provides simultaneous access to all of the data tape cartridges in the slots and allows a force to be applied simultaneously to all of the data tape cartridges to push all of the data tape cartridges out of the frame at the same time; and

a plurality of apertures formed in the frame, each of the apertures registering with one of the slots and providing access to a respective one of the data tape cartridges for inspecting said respective one of the data tape cartridges for proper tape leader pin seating.

11. The system of claim 10, wherein the top, the bottom, and the pair of side walls for each of the slots is corrugated.

12. The system of claim 10, wherein the top, the bottom, and the pair of side walls of each slot frictionally engage a respective one of the data tape cartridges with a snug yet compliant fit.

13. The system of claim 10, wherein the rear opening is also formed in the top and the bottom of the frame, such that the rear opening extends from the top of the frame to the bottom of the frame, and wherein each of the partitions has an opening formed in a rear portion thereof that is complementary in shape to the rear opening.

14. The system of claim 10, wherein each of the apertures is an elongated slot extending from the rear of the frame toward the front of the frame and is formed in one of the side walls of the

frame to provide access to a rear portion and a side portion of respective ones of the data tape cartridges.

15. The system of claim 10, further comprising a front opening formed in the top and the bottom of the frame and in each of the partitions that provides simultaneous access to all of the data tape cartridges in the slots and allows a force to be applied simultaneously to all of the data tape cartridges to push all of the data tape cartridges into the slots toward the rear of the frame at the same time.

16. A method of protecting data tape cartridges from shock and vibration during shipping, the method comprising:

- (a) providing a frame having an interior and partitions in the interior in a parallel configuration, each of the partitions defining a pair of adjacent, parallel slots, and each of the slots having a top, a bottom, a pair of side walls, and an aperture formed in one of the side walls;
- (b) inserting data tape cartridges into respective ones of the slots such that the data tape cartridges are engaged and retained in the slots and isolated from each other;
- (c) bundling the frame such that the data tape cartridges are secured therein;
- (d) shipping the bundled frame;
- (e) removing the bundling from the frame; and then
- (f) engaging individual access doors of the data tape cartridges through their respective apertures and inspecting leader pins of the data tape cartridges prior to removing the data tape cartridges from the frame.

17. The method of claim 16, wherein the top, the bottom, and the pair of side walls of the slots are corrugated and frictionally engage respective ones of the data tape cartridges with a snug yet compliant fit.

18. The method of claim 16, further comprising the step of applying a force simultaneously to all of the data tape cartridges to push all of the data tape cartridges out of the frame at the same time and directly into a library station.

19. The method of claim 18, wherein the simultaneous force is applied through a rear opening formed in the frame and extending from a top of the frame to a bottom of the frame, and each of the partitions having an opening formed therein that is complementary in shape to the rear opening.

20. The method of claim 19, further comprising a front opening formed in the top and the bottom of the frame and in each of the partitions for providing simultaneous access to all of the

data tape cartridges in the slots and allowing a force to be applied simultaneously to all of the data tape cartridges to push all of the data tape cartridges into the slots.